PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:	A2	(1	1) International Publication Number:	WO 98/25231	
G06T		(4	3) International Publication Date:	11 June 1998 (11.06.98)	
(21) International Application Number: PCT/IB (22) International Filing Date: 17 November 1997 ((81) Designated States: JP, European par ES, FI, FR, GB, GR, IE, IT, LU		
(30) Priority Data: 96203400.5 6 December 1996 (06.12.96) (34) Countries for which the regional or international application was filed:) l	EP al.	Published Without international search repupon receipt of that report.	port and to be republished	
 (71) Applicant: PHILIPS ELECTRONICS N.V. [NL/NI newoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS NORDEN AB 					
Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventors: LAMBOURNE, Robert, Andrew; Prof. 6, NL-5656 AA Eindhoven (NL). KUSANO, Mie Holstlaan 6, NL-5656 AA Eindhoven (NL). L Andreas, Henricus, Elisabeth; Prof. Holstlaan 6, NAA Eindhoven (NL).	eko; Pr AMER NL-56	of. 2S, 56			
(74) Agent: GROENENDAAL, Antonius, W., M.; Inter Octrooibureau B.V., P.O. Box 220, NL-5600 AE E (NL).					

(54) Title: A METHOD AND DEVICE FOR CONFIGURING A MULTIMEDIA MESSAGE FOR PRESENTATION

(57) Abstract

A multimedia message is formatted for presentation. First, a formatted choice menu is presented for various multimedia categories in parallel. Upon one or more user selections in series, to each selection a monomedium item space is offered for enabling to enter an item for the associated monomedium into that space. After termination of all selections, the message is formatted for transfer. In particular, the choice menu has various selector spots, each associated to a respective monomedium. After entering a particular user item into the associated space, a symbolizer of that item is displayed at a predetermined position next to any remaining selector spot in the menu.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

		ES	Spain	LS	Lesotho	SI	Slovenia
AL	Albania		Spam Finland	LT	Lithuania	SK	Slovakia
AM	Armenia	FI		LU	Luxembourg	SN	Senegal
ΑT	Austria	FR	France	LV	Latvia	SZ	Swaziland
AU	Australia	GA	Gabon	MC	Monaco	TD	Chad
AZ	Azerbaijan	GB	United Kingdom	MD MD	Republic of Moldova	TG	Togo
BA	Bosnia and Herzegovina	GE	Georgia		•	TJ	Tajikistan
BB	Barbados	GH	Ghana	MG	Madagascar	TM	Turkmenistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav		Turkey
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IТ	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenva	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		•
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	Li	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
		LR	Liberia	SG	Singapore		
EE	Estonia	LK	Liocia	50			

WO 98/25231 PCT/IB97/01450

A method and device for configuring a multimedia message for presentation.

BACKGROUND TO THE INVENTION

The invention relates to a method for configuring a multimedia message for presentation to a non-local destination, said method comprising the steps of:

presenting a formatted choice menu for various multimedia categories in parallel,

upon one or more user selections in series, offering to each such user selection a monomedium item space for enabling the user to enter an item pertaining to the associated monomedium into said space,

and after termination of all selections formatting the message for transfer.

- The technology of composing of multimedia messages has been under discussion for some time. Various monomedia distinguish from each other in that either the transfer channels, or the rendering channels, or both, are distinguished in from each other. The distinction may be audio versus video or mixed. The distinction may reside in widely different bitrates. The embodiment hereinafter considers four such distinct monomedia:
- text in the form of characters, that each have an individual character identity, and collectively may be formed according to some letter type or font; here the rendering is visual, and the code is ASCII or the like
 - human or similar speech, or other sound, that is represented as coded sound; the rendering is audio, and the representation may be various, varying from LPC (linear predictive code) to CD-quality
 - photographs or other images represented by a coded picture; various compaction standards have been defined
 - movie represented by a sequence of coded pictures, that may or may not be accompanied by sound; this sound may be coded in another manner than the earlier one.

In principle, the number of the above channels may be chosen greater or smaller, either on the system or on the message level. Smaller, in that one or more of the above may be considered irrelevant or too expensive. Greater, in that additional channels may be considered. A further feasible channel is for example formed by handwriting or by a hand-drawn Figure, that is represented by a string of vectors. In an interactive context,

various other categories could be thought of.

Now, the inventors have recognized that the inexperienced user should be guided by a right amount of cues and indications for making the composing of a message a transparent art: the invention is not directed to professional data processing technologists. In particular, such user should readily grasp how far the composing of a particular multimedia message has proceeded without necessitating the replay of the full composition. Note that the latter may offer a problem, when the message contains static, as well as dynamic items: such replay could require several minutes.

10 SUMMARY TO THE INVENTION

Therefore, amongst other things it is an object of the present invention to visually indicate to a user person which items have been inserted into the message already, and also to some extent, the character or nature of such items. Now according to one of its aspects, the invention is characterized in that by providing in said formatted choice menu various selector spots, each associated to a respective monomedium, and after said entering of a particular user item into the associated space, displaying a symbolizer of that item at a predetermined position next to any remaining selector spot in the menu. Through the visual presentation, the user has a fuller idea of the "to-do" versus "done" character of the various parts of a message to be composed, and moreover, will even during the configuring, be inspired to proceed. For example, the showing of a snapshot photograph at a former selector spot or "hotspot", may easily bring about new associations for introducing into a textual message. The symbolizers may relate to the content of the associated item in the way of an excerpt, but this is not always feasible or optimum. Their positions may correspond to the position of the hotspot used for entering to the associated monomedium selection, but they may alternatively be, for example, positioned in a row according to seniority.

Advantageously said formatting as being selectably in any of a plurality of predetermined styles that are defined in the form of a respective template. This further supports the non-professional user in easily finding an appropriate message format.

Alternatively, the user may be offered a choice for freely composing the succession of the various items in the message and their presentations to the receiver.

The invention also relates to a device for practising the method. Further advantageous aspects of the invention are recited in dependent Claims.

15

20

25

BRIEF DESCRIPTION OF THE DRAWING

These and further aspects and advantages of the invention will be discussed more in detail hereinafter with reference to the disclosure of the preferred embodiments, and particularly with reference to the appended Figures that show:

Figure 1, a block diagram of a device according to the invention; Figure 2, a navigation diagram;

Figures 3A-3F, various frames that are displayed during the use of the invention.

10 DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Figure 1 is a block diagram of a device according to the invention. The setup centers around the common household television set 20 that has been provided with onboard or separate video recorder 22. The technology of both television and recorder may be present-day, as well as advanced. In one embodiment, the television set comprises enough on-board storage to hold the program necessary to practice the invention. In another embodiment, the program may sit on a separate server device 21. One envisaged realisation is to interconnect the server via Internet 23; Internet may then also be used for transmitting the letter itself. Control is by remote control device 28 that has two-dimensional cursoring control 30 provided with central OK button. Further controls are 32 for home, 34 for goto TV, and 36 for goto message environment. By itself, remote control technology is standard. Wireless keyboard 24 allows for text input; this need not attain full querty functionality. Alternatively, the keyboard may be located on-screen. The home selection has been indicated in Figure 2 by capital H.

Figure 2 is a navigation diagram. The overall facility starts from main screen 48. This offers selecting among inbox, outbox and create. Selecting is always by hotspots such as will be shown with reference to Figures 3A-3F hereinafter. Actuating Create transfers to create screen 50. This offers selecting among text, audio, picture, video. Selecting transfers to any of screens 52, 54, 56, 58 that pertain to the four selections, respectively. The content items can sourced by an appropriate storage mechanism, such as the VCR that may accommodate stills and sound, by a live source, such as camera or microphone not shown, scanner 26 for pictures or keyboard 24 for text. Screen 52 allows selecting add to letter and delete. Screen 54 additionally to screen 52 allows selecting record, stop and play. Screen 56 additionally allows selecting rotate, darken, and lighten. Screen 58 additionally allows selecting record, stop and play. Navigation along screens 52-

5

15

58 may proceed as found necessary. After all necessary items have been entered into the message data structure, compose screen 60 may be selected through add to letter. In particular, screen 60 shows locations that may but not need to correspond to the hotspot configuration of screen 50, and which now also feature the items entered into the message structure through an associated symbolizer of the user item in question. For example, if a picture, a cutout of the picture is shown. If text, the initial few lines of the text in question are shown, or just a fraction thereof, such as the letterhead. If a movie, a frame thereof is shown. If sound, an audio wave pattern is shown. This means that the user knows where items have already been entered already, and which possibilities have yet been left unused. After adding an item to the letter, the associated symbolizer is directly displayed in screen 60. This means that the screen as shown is only attained after entering all four categories. The transmitting of a message is possible after an arbitrary number of user items has been entered. In a simple version, each category may be entered only once. In a more elaborate version, the user may reselect a particular monomedium more than once. This could mean either that the displayed excerpt still retains its hotspot character, or that a special repeat hotspot would be present.

Screen 60 allows selecting between a plurality of styles, each style being defined in the form of a respective template. Appropriate style may be formal for a business letter, classic for a standard letter, congratulatory, hilarious or other. The inventors have considered the following embodiments:

- a. Classic template: first text and picture are displayed side-by-side; next the video is played; finally the sound is played while again displaying the picture.
- b. Congratulatory template: first the sound is played together with the picture, next the text is displayed, finally, the video is played
- 25 c. So-called wild template: first the picture is displayed together with dynamic text of which various paragraphs are shown one after the other; next, the video is displayed; finally, the sound is played while again displaying the picture.

For certain styles, the system may prompt the user to complete particular monomedia items of the message; this has not been shown for brevity. In an elementary version, the video may be omitted as requiring too much bandwidth.

The general nature of the format may be preprogrammed in the system, for example, in that for a congratulatory message various standard melodies can be selected, such as Happy Birthday, Wedding March, and so on. Also, various standard pictures or vignettes can be offered by the system to the user, either as basic features, or through

30

10

15

loading of some auxiliary medium such as a floppy disk, into the recorder. Selecting the style transfers to screen 62. This allows selecting play, stop, and addressing, as well as to return to screen 60 for selecting another style. If the user wants to send it, screen 64 allows selecting in an address directory or typing of an appropriate address. After addressing, screen 66 allows effectively sending the message to addressee. After sending, screen 68 allows saving or not saving the message. In both cases, the system reverts to main screen 48. Sending the same message to a series of addresses is done by returning to screen 64. After sending, the message is saved in the outbox.

The outbox is represented by screen 44. This allows selecting the sent messages in a list. If selected, the message may be viewed or played through selecting from screen 46. The subject of a particular message is entered at the same time as the addressing in box 64. Screen 46 allows selecting to play, or to stop the message. Similarly, screen 42 allows displaying the outbox list, whilst screen 40 allows selecting and playing of any received messages. For brevity, the actual receiving of messages sent by other persons, the clearing of the mailboxes, and various other utilities have not been discussed, inasmuch as the invention centers on the actual configuring of the messages.

4,100

36. A.

Figures 3A-3F depict various frames displayed during the use of the invention. Figure 3A is the CREATE screen. In the large field, the four selector spots relate to the text item, the sound item, the picture item, and the video item, respectively, as indicated by associated fixed icon-like elements; as shown by highlighting, first the text should be chosen. However, in another embodiment the sequence of entering the four monomedia items is arbitrary. The top right field has two icons that represent the classic and wild style, respectively, but which are not highlighted. Directly below is a further non-highlighted, and therefore, passive element. The other two fields are empty.

Figure 3B allows to compose the text, which is displayed in the big field. The text may be restricted so as to fit in this field, or alternatively be allowed to overflow this field. The top right field is empty. The lower field has icons for add-to-letter and for delete. The lower right field allows to go back to create.

Figure 3C allows to enter sound. The big field shows an amplitude characteristic of the sound while played. The right hand field has record, stop, and play icons. The lower two fields have the same icons as the preceding Figure.

Figure 3D allows to enter a picture. The big field has a picture for inclusion in the message. The right hand field has icons for rotate, darken, and lighten. The lower two fields have the same icons as the preceding Figure.

10

20

25

Figure 3E allows to enter video. This Figure has the same set of icons as Figure 3C. As this screen is generally the last to occur in message composing, it has at the bottom of its big field an icon that symbolizes the actual transmitting of the message. Going back to Screen 50 generally means cancel. Going to screen 60 generally means adding one more multimedia item, of which the associated excerpt then is displayed in lieu of the selector spot.

CLAIMS:

5

10

1. A method for configuring a multimedia message for presentation to a non-local destination, said method comprising the steps of:

presenting a formatted choice menu for various multimedia categories in parallel,

upon one or more user selections in series, offering to each such user selection a monomedium item space for enabling the user to enter an item pertaining to the associated monomedium into said space,

and after termination of all selections formatting the message for transfer;

characterized by providing in said formatted choice menu various selector spots, each associated to a respective monomedium, and after said entering of a particular user item into the associated space, displaying a symbolizer of that item at a predetermined position next to any remaining selector spot in the menu.

- 2. A method as claimed in Claim 1, wherein said predetermined position corresponds to the earlier position of the associated selector spot.
- 15 3. A method as claimed in Claims 1 or 2, wherein said symbolizer is an excerpt from the associated user item as entered.
 - 4. A method as claimed in Claims 1, 2 or 3, furthermore offering to a user said formatting as being selectably in any of a plurality of predetermined styles that are defined in the form of a respective template.
- 20 5. A method as claimed in any of Claims 1 to 4, wherein the number of monomedia item spaces is at least equal to four.
 - 6. A device for configuring a multimedia message for presentation to a non-local destination according to any of Claims 1 to 5, said device comprising:

video display means for presenting a formatted choice menu for various multimedia categories in parallel;

detection means for detecting one or more user selections in series, and upon each respective selection controlling one or more display screens for offering to the user an item space for therein entering a user item pertaining to an associated monomedium;

and formatting means for after termination of all selections formatting the

message for transfer;

characterized in that said video display means are arranged for providing in said formatted choice various selector spots each associated to a respective monomedium, and after said entering of a particular user item into the associated space displaying a symbolizer of that item at a predetermined position next to any remaining selector spot in the menu.

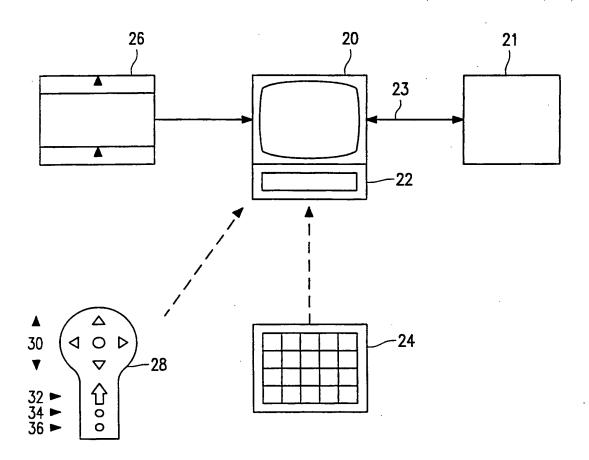
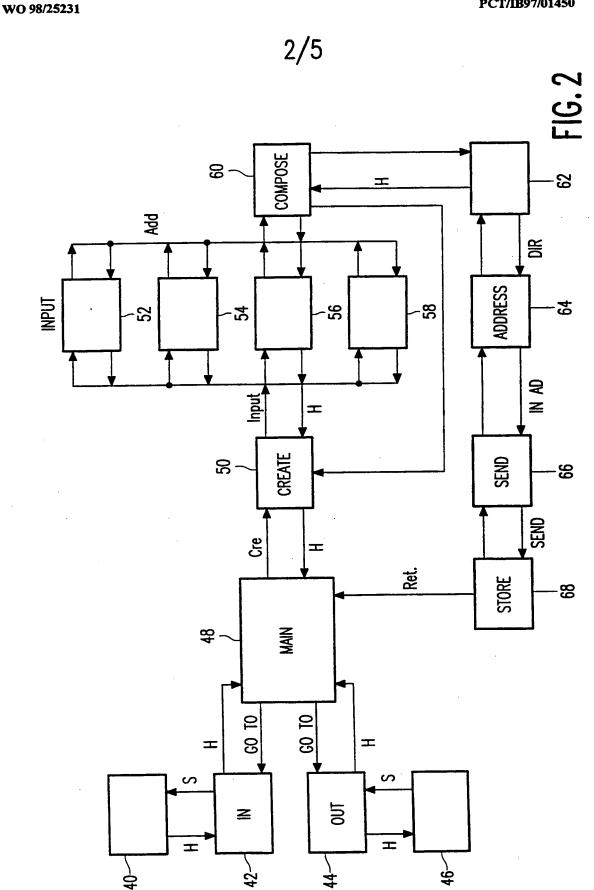


FIG. 1

PCT/IB97/01450



WO 98/25231 PCT/IB97/01450

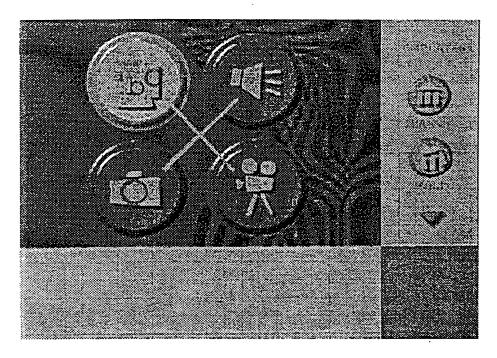


Fig.3A

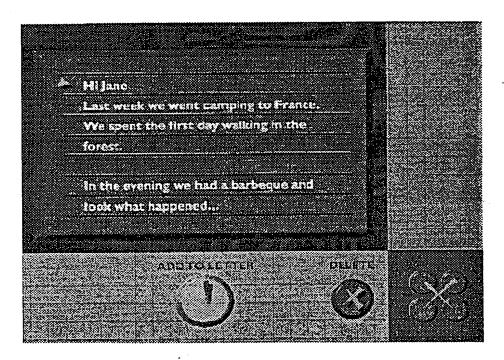


Fig.3B

WO 98/25231 PCT/IB97/01450

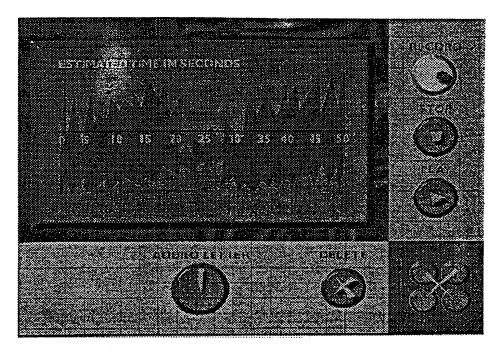


Fig.3C

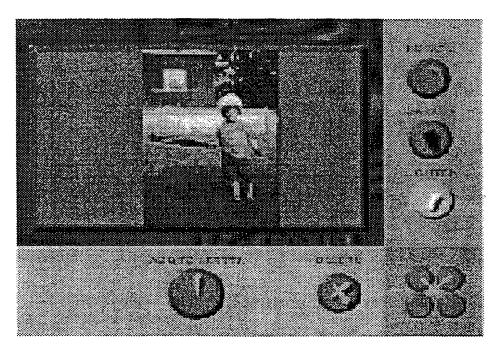


Fig.3D

PCT/IB97/01450

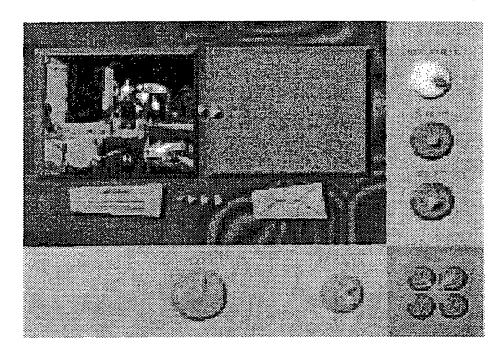


Fig.3E

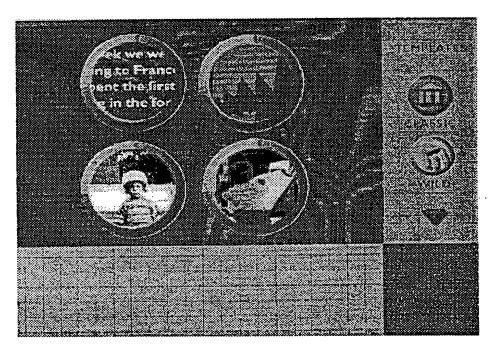


Fig.3F

THIS PAGE BLANK (USPTO)

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classificati n ⁶: G06F 17/30, 13/00, 19/00 // G06F 9/46, 15/16

(11) International Publication Number:

WO 98/25231

(43) International Publication Date:

11 June 1998 (11.06.98)

(21) International Application Number:

PCT/IB97/01450

(22) International Filing Date:

17 November 1997 (17.11.97)

(30) Priority Data:

96203400.5 6 December 1996 (06.12.96) EP (34) Countries for which the regional or

international application was filed: NL et al.

(71) Applicant: PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(71) Applicant (for SE only): PHILIPS NORDEN AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE).

(72) Inventors: LAMBOURNE, Robert, Andrew; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). KUSANO, Mieko; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). LAMERS, Andreas, Henricus, Elisabeth; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: GROENENDAAL, Antonius, W., M.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).

(81) Designated States: JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

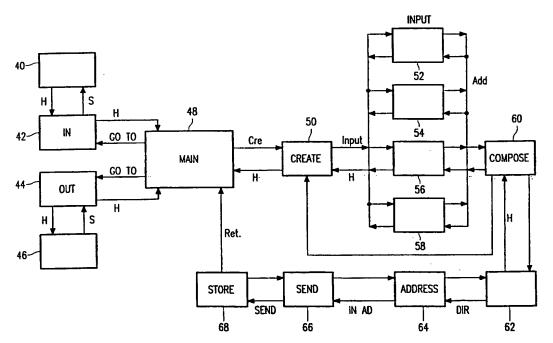
With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(88) Date of publication of the international search report:

16 July 1998 (16.07.98)

(54) Title: A METHOD AND DEVICE FOR CONFIGURING A MULTIMEDIA MESSAGE FOR PRESENTATION



(57) Abstract

A multimedia message is formatted for presentation. First, a formatted choice menu is presented for vari us multimedia categories in parallel. Upon one or more user selections in series, to each selection a monomedium item space is offered f r enabling to enter an item for the associated monomedium into that space. After termination of all selections, the message is formatted for transfer. In particular, the choice menu has vari us selector spots, each associated to a respective monomedium. After entering a particular user item int the associated space, a symbolizer of that item is displayed at a predetermined position next to any remaining selector spot in the menu.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
ΑU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
ΑZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR ·	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	· SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No. PCT/IB 97/01450

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: G06F 17/30,, G06F 13/00, G06F 19/00 // G06F 9/46, G06F 15/16 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPIL, DIALOG, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	Proceedings. High Performance Computing, Volume, 1997, Seh-Joon Dokko et al, "Development of Multimedia E-mail System Providing an Integrated Message View", see whole document	1-6
		·
P,X	US 5630060 A (HIEN TANG ET AL), 13 May 1997 (13.05.97), column 1, line 45 - column 2, line 24, figure 3, claims 1-2, abstract	1-6
		
P,X	EP 0788065 A2 (LUCENT TECHNOLOGIES INC.), 21 January 1997 (21.01.97), page 2, line 34 - line 58, figure 1, claim 1, abstract	1-6
		

L X	Further documents are listed in the continuation of Box	: C.	X See patent family annex.			
*	Special categories of cited documents:	"T"	later document published after the international filing date or priority			
"A"	document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the application but cited to understand the principle or theory underlying the invention			
"E"	erlier document but published on or after the international filing date	"X"				
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other		considered novel or cannot be considered to involve an inventive step when the document is taken alone			
	special reason (as specified)	"Y" document of particular relevance: the claimed in				
"0"	ocument referring to an oral disclosure, use, exhibition or other		considered to involve an inventive step when the document is combined with one or more other such documents, such combination			
"P"	document published prior to the international filing date but later than		being obvious to a person skilled in the art			
İ	the priority date claimed	"& "	document member of the same patent family			
Date	e of the actual completion of the international search	Date	of mailing of the international search report			
.~	W 1000		2 8 -05- 1998			
	May 1998					
Nan	ne and mailing address of the ISA/	Autho	rized officer			
	edish Patent Office					
Box 5055, S-102 42 STOCKHOLM		Linus Wretbald				
Fac	simile No. +46 8 666 02 86	Telephone No. +46 8 782 25 00				

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International application No. PCT/IB 97/01450

	PCI/II	B 9//01450
C (Continu	nation). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant pass	ages Relevant to claim N
х	Conference on Telecommunications, Volume, 1993, (Croatia), Alan Kuresevic et al, "THE MULTIMEDI MAIL USER AGENT", see whole document	A 1-6
х	EP 0697655 A2 (CANON KABUSHIKI KAISHA), 11 August 1995 (11.08.95), column 1, figures 1, claims 1,18, abstract	4,6,
x	US 5517652 A (TAKANORI MIYAMOTO ET AL), 14 May 1996 (14.05.96), column 10, line 48 - line 65, figures 20-23, claims 1,14, abstract	1-6
;		
		·

INTERNATIONAL SEARCH REPORT

Information on patent family members

29/04/98

International application No. PCT/IB 97/01450

	atent document I in search repor		Publication date		Patent family member(s)		Publication date
US	5630060	A	13/05/97	JP	6319005	A	15/11/94
EP	0788065	A2	21/01/97	AU CA JP	1245097 2193016 9297748	A	07/08/97 03/08/97 18/11/97
EP	0697655	A2	11/08/95	JP	8123715	Α	17/05/96
US	5517652	Α	14/05/96	JP	4356844	A	10/12/92

Form PCT/ISA/210 (patent family annex) (July 1992)

THIS PAGE BLANK (USPTO)